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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/660,023

09/11/2003

Seung-Hwan Moon

YOM-0059

5903

7590

11/19/2004

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EXAMINER

VU, DAVID HUNG

ART UNIT

PAPER NUMBER

2828

DATE MAILED: 11/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/660,023

Applicant(s)

MOON, SEUNG-HWAN

Examiner

David Vu

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-13 is/are allowed.
- 6) ☒ Claim(s) 14, 16 and 20 is/are rejected.
- 7) ☒ Claim(s) 15, 17-19 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, subject matters in claims 1 and 2, i.e., "the plurality of inverters comprise a first inverter receiving the input ON/OFF signal from the external device and a second inverter receiving the input ON/OFF signal from one of the plurality of inverters and the inverters are connected in series" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

### ***Specification***

2. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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4. Claim 14 is rejected under 35 U.S.C. 102(e) as being anticipated by Lin et al, U.S. Pat. No. 6,707,264.

Lee et al disclose the claimed invention including lamp units each lamp unit including at least one lamp LOAD1-LOADn, 0-11, the apparatus comprising: a delay block 16 receiving an input ON/OFF signal and stepwise delaying the input ON/OFF signal to generate a plurality of output ON/OFF signals; and a plurality of inverters 130 controlling the lighting of the respective lamp units based on the respective output ON/OFF signals (figures 2,7,9, 12, and 14b; column 2, lines 50+, column 4, lines 50+, column 5, lines 17+, column 8, lines 40-50, column 11, lines 50+, column 14, lines 1-32).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 16 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al, U.S. Pub No 2003/0038770 in view of Lin et al.

Lee et al disclose a liquid crystal display comprising: a panel assembly including a plurality of pixels, a plurality of gate lines 610 connected to the pixels, and a plurality of data lines 620 connected to the pixels; a plurality of lamp units 510,520 for illuminating the panel assembly; a gate driver 200 for providing signals for the gate

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lines; a data driver 310 for providing signals for the data lines; a controller 100 for providing image signals for the data driver and control signals for the gate driver and the data driver and generating ON/OFF signal for driving the lamp units and inverters 410-420 (figures 2,4,5, paragraphs 29-32,34,40,42,44). Lee et al do not explicitly disclose a delay block<sup>for</sup> delaying the ON/OFF signal. Lin et al disclose delay block 16 for delaying ON/OFF signal. An obvious modification would have provided the Lee et al reference with the delay block for delaying the ON/OFF signal. It would have been obvious to one having ordinary skill in the art at the time of applicant's claimed invention was made to have provided the Lee et al reference with the delay block for delaying the ON/OFF signal from the controller; thus, sequentially turning on of the lamps would have been realized.

Regarding claim 20, RC circuit was notoriously well know in the art; thus, it would have been obvious to one having ordinary skill in the art at the time of applicant's claimed invention was made to have employed an RC circuit so as to delay signal from the controller.

#### ***Allowable Subject Matter***

7. Claims 1-13 are allowed.
8. Claims 15 and 17-19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

**Conclusion**

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The patent by Stevanovic et al is cited as showing a lamp circuit employing an RC circuit.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Vu whose telephone number is (571) 272-1831. The examiner can normally be reached on M-F 8am-430pm.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



David Vu  
Primary Examiner  
Art Unit 2828